



#16

ONYX1048-US.ST25.txt  
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<130> ONYX1048-US

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<141> 2001-10-09

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<170> PatentIn version 3.1

<210> 1

<211> 1102

<212> PRT

<213> Porcine PI3K

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Ser Ser Met Glu Leu Ile Pro Ile Glu Phe Val Leu Pro Thr Ser Gln  
35 40 45

Arg Asn Thr Lys Thr Pro Glu Thr Ala Leu Leu His Val Ala Gly His  
50 55 60

Gly Asn Val Glu Gln Met Lys Ala Gln Val Trp Leu Arg Ala Leu Glu  
65 70 75 80

Thr Ser Val Ser Ala Asp Phe Tyr His Arg Leu Gly Pro Asp His Phe  
85 90 95

Leu Leu Leu Tyr Gln Lys Lys Gly Gln Trp Tyr Glu Ile Tyr Asp Lys  
100 105 110

Tyr Gln Val Val Gln Thr Leu Asp Cys Leu Arg Tyr Trp Lys Val Leu  
115 120 125

His Arg Ser Pro Gly Gln Ile His Val Val Gln Arg His Ala Pro Ser  
130 135 140

Glu Glu Thr Leu Ala Phe Gln Arg Gln Leu Asn Ala Leu Ile Gly Tyr  
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Asp Val Thr Asp Val Ser Asn Val His Asp Asp Glu Leu Glu Phe Thr  
165 170 175

Arg Arg Arg Leu Val Thr Pro Arg Met Ala Glu Val Ala Gly Arg Asp  
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Pro Lys Leu Tyr Ala Met His Pro Trp Val Thr Ser Lys Pro Leu Pro  
195 200 205

Glu Tyr Leu Leu Lys Lys Ile Thr Asn Asn Cys Val Phe Ile Val Ile  
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His Arg Ser Thr Thr Ser Gln Thr Ile Lys Val Ser Ala Asp Asp Thr  
225 230 235 240

Pro Gly Thr Ile Leu Gln Ser Phe Phe Thr Lys Met Ala Lys Lys Lys  
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Ser Leu Met Asp Ile Pro Glu Ser Gln Asn Glu Arg Asp Phe Val Leu  
260 265 270

Arg Val Cys Gly Arg Asp Glu Tyr Leu Val Gly Glu Thr Pro Ile Lys  
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Asn Phe Gln Trp Val Arg Gln Cys Leu Lys Asn Gly Glu Glu Ile His  
290 295 300

Leu Val Leu Asp Thr Pro Pro Asp Pro Ala Leu Asp Glu Val Arg Lys  
305 310 315 320

Glu Glu Trp Pro Leu Val Asp Asp Cys Thr Gly Val Thr Gly Tyr His  
325 330 335

Glu Gln Leu Thr Ile His Gly Lys Asp His Glu Ser Val Phe Thr Val  
340 345 350

Ser Leu Trp Asp Cys Asp Arg Lys Phe Arg Val Lys Ile Arg Gly Ile  
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Asp Ile Pro Val Leu Pro Arg Thr Ala Asp Leu Thr Val Phe Val Glu  
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ONYX1048-US.ST25.txt

Ala Asn Ile Gln Tyr Gly Gln Gln Val Leu Cys Gln Arg Arg Thr Ser  
385 390 395 400

Pro Lys Pro Phe Thr Glu Glu Val Leu Trp Asn Val Trp Leu Glu Phe  
405 410 415

Ser Ile Lys Ile Lys Asp Leu Pro Lys Gly Ala Leu Leu Asn Leu Gln  
420 425 430

Ile Tyr Cys Gly Lys Ala Pro Ala Leu Ser Gly Lys Thr Ser Ala Glu  
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Met Pro Ser Pro Glu Ser Lys Gly Lys Ala Gln Leu Leu Tyr Tyr Val  
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Asn Leu Leu Leu Ile Asp His Arg Phe Leu Leu Arg His Gly Glu Tyr  
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Val Leu His Met Trp Gln Leu Ser Gly Lys Gly Glu Asp Gln Gly Ser  
485 490 495

Phe Asn Ala Asp Lys Leu Thr Ser Ala Thr Asn Pro Asp Lys Glu Asn  
500 505 510

Ser Met Ser Ile Ser Ile Leu Leu Asp Asn Tyr Cys His Pro Ile Ala  
515 520 525

Leu Pro Lys His Arg Pro Thr Pro Asp Pro Glu Gly Asp Arg Val Arg  
530 535 540

Ala Glu Met Pro Asn Gln Leu Arg Lys Gln Leu Glu Ala Ile Ile Ala  
545 550 555 560

Thr Asp Pro Leu Asn Pro Leu Thr Ala Glu Asp Lys Glu Leu Leu Trp  
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His Phe Arg Tyr Glu Ser Leu Lys Asp Pro Lys Ala Tyr Pro Lys Leu  
580 585 590

Phe Ser Ser Val Lys Trp Gly Gln Gln Glu Ile Val Ala Lys Thr Tyr  
595 600 605

Gln Leu Leu Ala Lys Arg Glu Val Trp Asp Gln Ser Ala Leu Asp Val  
610 615 620

Gly Leu Thr Met Gln Leu Leu Asp Cys Asn Phe Ser Asp Glu Asn Val  
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Arg Ala Ile Ala Val Gln Lys Leu Glu Ser Leu Glu Asp Asp Asp Val  
645 650 655

Leu His Tyr Leu Leu Gln Leu Val Gln Ala Val Lys Phe Glu Pro Tyr  
660 665 670

His Asp Ser Ala Leu Ala Arg Phe Leu Leu Lys Arg Gly Leu Arg Asn  
675 680 685

Lys Arg Ile Gly His Phe Leu Phe Trp Phe Leu Arg Ser Glu Ile Ala  
690 695 700

Gln Ser Arg His Tyr Gln Gln Arg Phe Ala Val Ile Leu Glu Ala Tyr  
705 710 715 720

Leu Arg Gly Cys Gly Thr Ala Met Leu His Asp Phe Thr Gln Gln Val  
725 730 735

Gln Val Ile Asp Met Leu Gln Lys Val Thr Ile Asp Ile Lys Ser Leu  
740 745 750

Ser Ala Glu Lys Tyr Asp Val Ser Ser Gln Val Ile Ser Gln Leu Lys  
755 760 765

Gln Lys Leu Glu Asn Leu Gln Asn Leu Asn Leu Pro Gln Ser Phe Arg  
770 775 780

Val Pro Tyr Asp Pro Gly Leu Lys Ala Gly Ala Leu Val Ile Glu Lys  
785 790 795 800

Cys Lys Val Met Ala Ser Lys Lys Lys Pro Leu Trp Leu Glu Phe Lys  
805 810 815

Cys Ala Asp Pro Thr Ala Leu Ser Asn Glu Thr Ile Gly Ile Ile Phe  
820 825 830

Lys His Gly Asp Asp Leu Arg Gln Asp Met Leu Ile Leu Gln Ile Leu  
835 840 845

Arg Ile Met Glu Ser Ile Trp Glu Thr Glu Ser Leu Asp Leu Cys Leu  
850 855 860

Leu Pro Tyr Gly Cys Ile Ser Thr Gly Asp Lys Ile Gly Met Ile Glu  
865 870 875 880

Ile Val Lys Asp Ala Thr Thr Ile Ala Lys Ile Gln Gln Ser Thr Val  
Page 4

885

890

895

Gly Asn Thr Gly Ala Phe Lys Asp Glu Val Leu Ser His Trp Leu Lys  
900 905 910

Glu Lys Cys Pro Ile Glu Glu Lys Phe Gln Ala Ala Val Glu Arg Phe  
915 920 925

Val Tyr Ser Cys Ala Gly Tyr Cys Val Ala Thr Phe Val Leu Gly Ile  
930 935 940

Gly Asp Arg His Asn Asp Asn Ile Met Ile Ser Glu Thr Gly Asn Leu  
945 950 955 960

Phe His Ile Asp Phe Gly His Ile Leu Gly Asn Tyr Lys Ser Phe Leu  
965 970 975

Gly Ile Asn Lys Glu Arg Val Pro Phe Val Leu Thr Pro Asp Phe Leu  
980 985 990

Phe Val Met Gly Thr Ser Gly Lys Lys Thr Ser Leu His Phe Gln Lys  
995 1000 1005

Phe Gln Asp Val Cys Val Lys Ala Tyr Leu Ala Leu Arg His His  
1010 1015 1020

Thr Asn Leu Leu Ile Ile Leu Phe Ser Met Met Leu Met Thr Gly  
1025 1030 1035

Met Pro Gln Leu Thr Ser Lys Glu Asp Ile Glu Tyr Ile Arg Asp  
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Ala Leu Thr Val Gly Lys Ser Glu Glu Asp Ala Lys Lys Tyr Phe  
1055 1060 1065

Leu Asp Gln Ile Glu Val Cys Arg Asp Lys Gly Trp Thr Val Gln  
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Phe Asn Trp Phe Leu His Leu Val Leu Gly Ile Lys Gln Gly Glu  
1085 1090 1095

Lys His Ser Ala  
1100